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Current Practice of Family-Based Interventions for Child Traumatic Stress: Results from a National Survey

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Clinical practice and research indicate an important role for family-based interventions for child traumatic stress. However, the field lags behind family-based intervention science for other childhood mental health problems and individual treatment for child traumatic stress. This study describes the current practice of family-based interventions for child traumatic stress across a national network of programs serving traumatized children. Although most programs delivered at least one family-based intervention, less than a third of interventions identified had a treatment manual, and few had data to support intervention efficacy. More detailed information is needed on matching the family-based interventions to clinical contexts, establishing effective family engagement strategies, identifying culturally specific adaptations, as well as developmentally matched protocols for child traumatic stress.

Keywords Family-based interventions, child traumatic stress, survey study

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When a child is exposed to trauma, the entire family may be affected either directly or indirectly, often sharing recovery challenges with the child. Parents and other family members who witness traumatic injury or serious medical illness in a child can also become symptomatic themselves (Kazak et al., 2004; Pfefferbaum, 1997). Family members who do not directly experience the traumatic event nevertheless face the challenges of coping with changes in the traumatized child's behavior and emotions over time. Child traumatic stress symptoms, such as difficulty sleeping, poor concentration, aggression, withdrawal, developmental regressions in younger children, and risk taking behaviors in adolescents can challenge parents and strain family life (Jacobsen, Sweeney, & Racusin, 1993; Pynoos & Nader, 1993). Despite these challenges, information about interventions that support and strengthen parenting and family functioning in the context of child traumatic stress is limited. This study reports on the current practice of family-based treatments across a national network of clinical programs serving children with traumatic stress.

Family functioning, particularly central components of parenting, plays an important role in a child's recovery from traumatic events. Secure attachment relationships, nurturing and effective parenting practices, and positive parental adjustment have been repeatedly found to be protective for children's mental health across multiple contexts and developmental periods (Cicchetti & Cohen, 1995; Cowan & Cowan, 2002; Masten, Best, & Garmezy, 1990; Rutter, 2002; Sroufe, Egeland, Carlson, & Collins, 2005). Further, a positive family environment, particularly adequate family cohesiveness, has been shown to correlate with improved child emotional and behavioral adjustment post-trauma (Breton, Valla, & Lambert, 1993; Conte & Schuerman, 1987; Everson, Hunter, Runyon, Edelsohn, & Coulter, 1989; Friedrich, Beilke, & Urquiza, 1987; Herrenkohl, Herrenkohl, & Egolf, 1994; Laor et al., 1996; Laor, Wolmer, & Cohen, 2001; McFarlane, 1987).

Many of the traumatic events children experience-natural disasters, war/refugee trauma, domestic violence, neighborhood violent crimetend to be shared events to which multiple family members are exposed. Following joint exposure to traumatic events, multiple family members can develop trauma-related symptoms, and the disparity between both subjective and objective aspects of the traumatic event for different people can disrupt or strain relationships. Family members may even function as traumatic reminders to one another, lessening their capacity to support one another in recovery (Pynoos & Nader, 1993). Family members also typically share post-traumatic adversities, including economic hardships and marital strain, which can interfere with the adjustment and recovery of all family members (Jacobsen et al., 1993; Jordan et al., 1992; Kulka et al., 1990; Saltzman, Layne, Steinberg, Arslanagic, & Pynoos, 2003; Solomon, 1988).

A child's recovery from traumatic stress may be complicated by parents' own reactions to traumatic events. Parental irritability and aggression, commonly associated with post traumatic stress, predict negative outcomes for child adjustment in other settings (Rutter & Quinton, 1984). Following traumatic exposure, a correlation between parent and child traumatic stress symptoms has been consistently found across many contexts and appears to be persistent over time (Conte & Schuerman, 1987; Dybdahl, 2001; Friedrich et al., 1987; Green et al., 1991; Kalantari, Yule, & Gardner, 1993; Kazak & Barakat, 1997; Laor et al., 2001). This relationship appears to follow a developmental trajectory, with higher correlations between the reactions of parents and children found for younger children (Laor et al.; Wolmer, Laor, Gershon, Mayes, & Cohen, 2000). The presence of trauma-related symptoms in a parent, such as anxiety, avoidance, intrusion, and emotional numbing, can also interfere with their ability to maintain family routines and roles (Carroll, Rueger, Foy, & Donahue, 1985; Caselli & Motta, 1995; Jordan et al., 1992; McFarlane, 1987; Rosenheck & Thomson, 1986; Ruscio, Weathers, King, & King, 2002;

Solomon, Mikulincer, & Flum, 1988). Parental post traumatic stress symptoms may also interfere with appropriate child monitoring, as well as with responsiveness to their child's behaviors and emotions (Burke, Borus, Burns, Millstein, & Beasley, 1982; Earls, Smith, Reich, & Jung, 1988; Everson et al., 1989; Handford et al., 1986). For example, parents exposed to war trauma are more likely to show more authoritarian parenting styles and decreased supportiveness (Jurich, 1983, Punamaki, Qouta, & Sarraj, 1997).

Given the well established relationships between traumatic stress and family functioning, there is a growing interest in the applications of family intervention science for child traumatic stress. Over the past two decades, the field of family intervention science both for the treatment and prevention of other child mental health problems has emerged as an important area for the development of effective interventions for children (Barlow & Stewart-Brown, 2000; Diamond & Josephson, 2005; Diamond, Serrano, Dickey, & Sonis, 1996; Nixon, 2002; Rotheram-Borus, Lee, Lin, & Lester, 2004). General practice guidelines recognize the role of parents and other family members in a child's trauma and recovery, and they advocate for the inclusion of families in interventions (American Academy of Child and Adolescent Psychiatry, 1999). Among interventions for child traumatic stress, many models and treatment protocols do either focus on parent-child relationships or incorporate parent elements, with emerging data on clinical benefit (Cohen, 2003; Dybdahl, 2001; Lieberman, Van Horn, & Ippen, 2005; Saltzman et al., 2003; Scheeringa, 1999). However, the science of family-based interventions remains less developed for the treatment of child traumatic stress than for other mental health problems, and it lags behind that for individual treatment models.

This descriptive study examines the current practice of family-based services across a national network of clinical programs serving children with traumatic stress. The National Child Traumatic Stress Network (NCTSN) is a network of researchers and established service providers selected through a competitive national screening by the Substance Abuse and Mental Health Services Administration (SAMHSA), and was founded in 2001 to improve the standard of care and access to services for traumatized children and families across the United States. The NCTSN provides a unique opportunity to document the current delivery of family-based services for traumatized children within an established population of providers.

Methods

A preliminary review of NCTSN materials-site applications and informational surveys-identified common categories for treatment modalities that include family members other than the identified child client. Based on this initial review, family-based mental health services were defined as: family assessment, parent training, parent psycho-education, family therapy (single or multiple), parent-child dyadic treatment, or coordinated parent-child individual or group treatments. The survey was then piloted with non-NCTSN child trauma service groups and minor modifications to response categories were subsequently made.

Program directors of the 37 NCTSN grantee sites were contacted and invited to participate in the study; they were told that their participation was voluntary. Programs identified by their directors as providing no clinical services (n = 2) were ineligible to complete the survey. The survey took about one hour to complete, and was administered to either program directors or intervention coordinators by telephone. Study procedures were exempt from review by the University of California Institutional Review Board, as informants were not considered human research subjects. The study sought no data about individual clients treated at the sites or about the informants themselves.

The survey asked each NCTSN site to identify the treatment settings in which family-based services were delivered and the types of family-based service delivered in each setting. Informants endorsed items from lists of treatment settings and service types. Informants then answered a series of questions on the characteristics of each type of service provided: whether it was considered primary or adjunctive; criteria for accepting patients; recommended treatment length; commonly participating family members; type of clinician; and treatment models, guidelines, manuals, and indicators of success used. Most questions on service characteristics asked for endorsements of listed items, and some for informant-generated responses.

Data were entered and cleaned in a Microsoft Access data management system. Summary descriptive statistics, computed in SAS version 8 (SAS Institute Inc., Cary NC), are reported for Service Settings and by Family Based Service type across network sites.

Results

Of the 37 programs participating in the NCTSN at the time of the survey, 35 programs reported delivering family-based services for childhood traumatic stress at least at one of their participating clinical sites. Two programs were ineligible because they did not offer clinical services. The 35 responding NCTSN programs reported on 73 treatment settings ($M = 2.1$, $SD = 1.2$) that provided at least one type of family-based treatment. Across these treatment settings, clinical services were provided to 4,359 child clients each month, with a mean number of 125 + 189 clients served each month across different service settings.

Types of Treatment Settings

Family-based interventions for child traumatic stress were provided in a variety of treatment settings, with most programs identifying more than one treatment setting (see Table 1). The most commonly identified treatment setting for the delivery of family-based services was mental health outpatient facilities; also frequently identified were school/childcare, child protective settings, and pediatric clinical settings. Juvenile justice facilities and mental health inpatient settings were used less frequently for the delivery of family-based services. Other treatment settings included home-based settings and specific community-based research sites.

Family-Based Services and Service Setting

The types of family-based services for child traumatic stress by service setting appear in Table 2. The following patterns emerged from the survey responses.

Parent-Focused Services. Parent-focused services were largely absent from law enforcement, juvenile justice, detention or secure delinquency, and residential mental health treatment settings, but were more common in other settings, including child protective, mental health outpatient and inpatient, court/battered women's shelter, school/child care, and pediatric medical facilities. Overall, parent psycho-education was more commonly reported than parent-training services across treatment settings, although settings that offered one type of parent-focused service tended to offer the other. Participating mental health residential settings reported providing only parent training, and day treatment and child protective service settings reported providing only parent psycho-education. Relatively comparable levels of both services were offered in schools or child care programs, pediatric clinics or hospitals, shelters, and outpatient mental health clinics, whereas

Table 1
Distribution of Family-Based Services by Treatment Setting

	Programs Represented (N = 35)	
Treatment Setting Type	%	N
Child protective	17	6
Mental health outpatient setting	86	30
Mental health residential setting	9	3
Mental health inpatient setting	3	1
Court and/or battered women's shelter	9	3
Law enforcement	6	2
School/child care setting	26	9
Pediatric clinic or hospital	14	5
Juvenile justice	0	0
Emergency room	9	3
Detention or secure delinquency	0	0
Day treatment program	14	5
Other*	17	6

*Home-based, community-based.

child protective and day treatment settings provide parent psycho-education, but very little parent training. Emergency rooms, juvenile justice, and law enforcement settings reported offering no parent-focused services.

Family Therapy Services. As with parent-focused services, different types of family therapy services tended to co-occur within service settings. Parent-child therapy, which typically involved one parent seen with the child, was the most prevalent modality. Single-family therapy was far more prevalent than multiple-family therapy; the latter is offered in relatively few facilities. Settings not offering any family-based interventions included law enforcement, juvenile justice, emergency room, and detention or secure delinquency.

Family Assessment. Family assessment was a common service for most child trauma patients in child protective, mental health outpatient, court or battered women's shelter, school/childcare, emergency rooms and other, but uncommon in mental health residential and inpatient settings. Across this network, it was not offered at all in law enforcement, pediatric clinic or hospital, juvenile justice, or delinquency facilities.

Characteristics of Family-Based Services for Traumatized Children

Characteristics of family-based services for child trauma by treatment type appear in Table 3.

Primary Versus Adjunctive Modalities. Parent-focused services and family-support groups were reported more frequently as adjunctive rather than primary treatment modalities. Conversely, for about half of the service settings, parent-child therapy, and single- and multiple-family therapy were reported as a primary treatment modality for traumatized children.

Table 2
Percentage of Clients Receiving Family-Based Service by Service Setting Type (n = 73)

Service Setting	Parent Training	Parent Psycho-education	Parent-Child Therapy	Single Family Therapy	Multiple Family Therapy	Family Assessment	Family Support Groups
Child Protective	5	68	65	80	*	100	5
MH Outpatient	32	71	56	28	11	80	33
MH Residential	8	*	50	44	*	10	*
MH Inpatient	*	40	75	25	*	20	*
Court/battered Women's Shelter	50	65	100	*	20	100	*
Law Enforcement	*	*	*	*	*	*	*
School or Child Care	40	78	44	18	5	75	33
Pediatric Clinic or Hospital	44	73	100	44	10	*	*
Juvenile Justice	*	*	*	*	*	*	*
Emergency Room	*	72	*	*	*	100	*
Detention or Secure Delinquency	*	*	*	*	*	*	*
Day Treatment	2	67	57	55	10	55	*
Other[†]	90	70	50	52	10	85	70

*Indicates no family based service type offered by any of reporting service setting.
[†]Home-based; community-based.

Table 3
Characteristics of Family-Based Services by Type of Service across Network Settings (n = 73)

	Parent Training $n = 29$	Parent Psycho-education $n = 52$	Parent-Child Therapy $n = 47$	Single Family Therapy $n = 44$	Multiple Family Therapy $n = 11$	Family Assessment $n = 34$	Family Support Groups $n = 14$
Treatment modality							
Primary	10%	40%	66%	43%	45%	56%	36%
Adjunctive	90%	60%	34%	57%	55%	44%	64%
Screening criteria for service		27%	38%	34%	18%	18%	43%
Trauma type	45%						
Family members exposed	45%	19%	23%	41%	36%	24%	57%
Presenting problem	48%	35%	60%	66%	64%	26%	50%
Symptom severity	38%	29%	43%	41%	45%	18%	50%
Other*	66%	46%	55%	57%	45%	32%	57%
Mean (*SD*) treatment length	2.5 (1.4)	2.1(1.3)	2.8(1.4)	3.0(1.3)	1.7(1.1)	1.8(1.2)	2.6(1.2)
Family members included							
Primary child client	41%	48%	89%	82%	82%	91%	64%
Mother	100%	92%	94%	89%	91%	97%	100%
Father	62%	67%	57%	68%	64%	65%	79%
Siblings	24%	27%	34%	70%	45%	65%	43%
Extended family	31%	25%	23%	36%	36%	44%	21%
Other†	27%	31%	17%	21%	27%	15%	14%

(Continued)

Table 3
(*Continued*)

	Parent Training $n = 29$	Parent Psycho-education $n = 52$	Parent-Child Therapy $n = 47$	Single Family Therapy $n = 44$	Multiple Family Therapy $n = 11$	Family Assessment $n = 34$	Family Support Groups $n = 14$
Provider	48%	50%	64%	55%	27%	41%	43%
Licensed psychologist							
Psychiatrist	7%	13%	21%	11%	9%	29%	7%
Family counselor	31%	27%	32%	34%	36%	15%	43%
Social worker	79%	90%	91%	82%	27%	41%	43%
Other‡	45%	40%	30%	32%	55%	18%	36%

*Family interest and accessibility; court referral/mandate.
†Caregiver; foster parents; legal guardian.
‡Special educator; intern; case manager.

Screening Criteria for Eligibility. All four categories of eligibility criteria for family-based service that the survey asked about-type of trauma, family members exposed, nature of presenting problem, and symptom severity-were endorsed by service providers using all types of family-based treatment. Type of trauma was the criterion cited most frequently by parent training and family support group providers, and least frequently by multiple-family therapy and family assessment providers. For those using type of trauma as a criterion for family-based services, interpersonal trauma, including sexual (66%) and physical (64%) abuse, family violence (70%), neglect (43%), and traumatic loss (37%), was most commonly identified, while other types of trauma (e.g., community violence, terrorism, medical trauma, disaster) were much less commonly identified as indicators of eligibility.

The exposure of other family members to the traumatic episode was commonly cited as a screening criterion for referral to family support groups and parent training, but less for parent psycho-education and parent-child therapy. Presenting clinical problem was identified as a screening criterion most frequently for single-and multiple-family therapy; among programs using nature of presenting problem as a screening criterion for family-based service eligibility, parent-child interaction problems and child disruptive behavior were the modal categories cited across treatment types. Symptom severity was identified most often as a criterion for referral to family support groups and family therapies, and less often for referral to family assessment and parent psycho-education. When asked to list other screening criteria not included explicitly on the survey, respondents most commonly named the availability and willingness of parents and other family members to participate in treatment of the child.

Treatment Duration, Family Members Included, and Clinician Type. Across treatment types, recommended treatment duration was generally in the range of two to three months. The constellation of family members included in treatment varied, but across most of the treatment types, the most common companion to the primary child client was the mother. Social workers were the most frequent type of clinician conducting interventions, followed by licensed psychologists and family counselors.

Conceptual Treatment Models and Clinical Guidelines. Major theoretical approaches to the family-based modalities were included in the survey in order to better understand the different treatment approaches employed at the clinical sites. A wide range of treatment models was identified within each modality, most frequently among them psycho-educational, cognitive-behavioral, and behavioral (see Table 4). Most service modalities were informed by more than one treatment model. Three common models for the delivery of family therapy were included: structural, strategic, and systemic approaches. Psycho-educational approaches, frequently included as a core element of other treatment models including preventative services, were commonly cited across settings and modalities.

Across the types of family-based treatments, with the exception of single- and multiple-family therapy, about half of services (43%-64%) were delivered according to documented clinical guidelines (see Figure 1). Less than a third of any type of family-based service was delivered with a treatment manual.

Indicators of Treatment Outcomes. The majority of providers of family-based intervention services reported using specific indicators of treatment outcomes. "Anecdotal" indicators were used most commonly, followed by administration of pre- and post-intervention assessment measures. Only a small percentage of services (3% – 6%) are evaluated using a standard-care comparison group.

Table 4

Intervention Design by Type of Service across Network Settings (n = 73)

	Parent Training $n = 29$	Parent Psycho-education $n = 52$	Parent-Child Therapy $n = 47$	Single Family Therapy $n = 44$	Multiple Family Therapy $n = 11$	Family Assessment $n = 34$	Family Support Groups $n = 14$
Conceptual treatment model							
Cognitive-behavioral	59%	46%	55%	50%	36%	18%	– 50%
Behavioral	45%	29%	32%	23%	27%	21%	43%
Systemic family	28%	13%	38%	52%	18%	3%	21%
Strategic family	7%	4%	15%	18%	0%	3%	7%
Structural family	7%	8%	17%	39%	36%	9%	21%
Brief family	0%	0%	9%	11%	0%	0%	7%
Multimodal/multisystemic	21%	15%	36%	43%	18%	15%	29%
Preventative approach	38%	33%	32%	25%	36%	15%	29%
Psychoeducational	83%	90%	68%	52%	36%	38%	57%
Psychodynamic	7%	17%	45%	39%	36%	29%	21%
Other	14%	10%	4%	0%	9%	3%	7%
Have documented guidelines	59%	48%	45%	27%	18%	62%	64%
Have treatment manual	34%	33%	34%	18%	9%	32%	36%
Utilize outcome measures							
Anecdotal	56%	70%	74%	71%	75%	94%	58%
Administration of out.	8%	18%	39%	32%	0%	18%	17%
Administration of pre-post	60%	53%	50%	44%	50%	24%	58%
Evaluation w/ comparison	0%	0%	3%	0%	13%	0%	0%
Evaluation, standard-care	0%	3%	3%	6%	0%	0%	0%

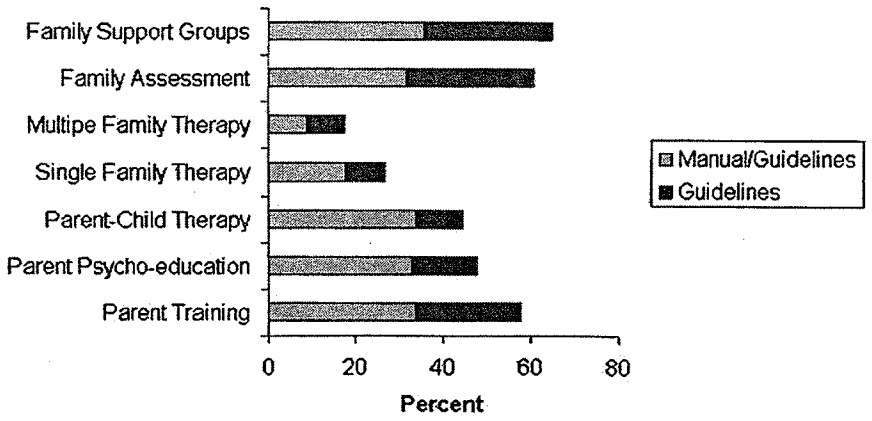

Figure 1. Percentage of centers with guidelines and manuals by service types.

Discussion

The findings from this survey provide an overview of the current clinical practice of family-based services for traumatized children across a national network of providers selected as part of a competitive process to provide leadership in raising the standard of care for the treatment of child traumatic stress. Several key points emerge from the data. First, the data demonstrate some achievements within the field of family-based treatments for child traumatic stress. Within a national network of clinical programs for child traumatic stress, all 35 programs providing any clinical services reported the inclusion of a least one family-based service in one or more of their treatment settings. Because the NCTSN programs were selected through a competitive federal review process, they are possibly not representative of child traumatic stress providers nationwide. Nevertheless, the inclusion of family-based interventions in so many of the NCTSN programs suggests that clinical consensus supports the inclusion of family-based intervention elements for the treatment of child traumatic stress. This finding provides confirmatory support to a growing literature on the importance of parental adjustment and family functioning in children's reactions to and recovery from traumatic events (Everson et al., 1989; Friedrich et al., 1987; Herrenkohl et al., 1994; Jacobsen et al., 1993; Kulka et al., 1990; Laor et al., 2001; McFarlane, 1987; Saltzman et al., 2003; Solomon, 1988).

The survey also identifies trauma-based parent psycho-education as a common component of treatment for child traumatic stress at these sites. Parental psycho-education is a way of providing support to caretakers in the child's natural environment, which in turn increases the resources and support available to the child. Family psycho-education teaches parents and children about identifying and reducing trauma-related symptoms. Trauma focused family psycho-education typically includes: (a) understanding the role of traumatic reminders in exacerbating other trauma-related symptoms, and finding effective strategies for managing these reminders; (b) addressing parental avoidance of discussion of the trauma, as a avoidance may reinforce the child's sense of fear of the event and decrease the child's sense of social support; (c) learning to anticipate anniversary reactions to the traumatic event; and (d) learning tools to decrease helplessness in the face of

the trauma and traumatic stress symptoms and to increase understanding between family members (http://www.nctsn.org). Other than the child client, the primary people included in family-based interventions were parents, but psycho-education can be extended to other groups of child caretakers, such as teachers and health care providers.

These data reveal shortcomings of two varieties in the field, including both problems related to service access and delivery, and those related to the formal development of the science of family-based interventions for child traumatic stress. Although they are provided across a wide range of child treatment settings, the survey reflects inconsistency in the delivery of family-based interventions in different service settings. Even in traditional health care settings, such as mental health outpatient, inpatient, and residential settings, there was wide variability in the proportion of traumatized children whose families received any services-even family assessment. Forensic facilities did not typically offer family-based services. This is not surprising, given the limited access to the child's family in these settings; however, given the high rates of traumatic stress found in youth in the juvenile justice system (Abram et al., 2004; Cauffman, Feldman, Waterman, & Steiner, 1998; Steiner, Garcia, & Matthews, 1997), the absence of trauma-focused family assessment and interventions may indicate a missed opportunity to support recovery in these children. Across all trauma types, treatment settings, and developmental levels, service providers can increase family participation by developing effective engagement strategies with families that strengthen alliances and support families in overcoming barriers to care for traumatized children.

Evidence-based family treatments and preventive interventions have been established to address other types of child and parent adjustment problems, including other childhood anxiety disorders (Diamond & Josephson, 2005). There is an emerging literature on family-based interventions for child traumatic stress, including evidence-based interventions that concentrate on trauma-focused parenting education and skills or parent-child interactions as core elements in the treatment protocols (Chaffin et al., 2004; Cohen, 2003; Lieberman et al., 2005). Despite this, only about half of family-based interventions for childhood trauma in this survey were delivered according to any written clinical guidelines, and even fewer were delivered using a documented treatment manual. Single family therapy for the treatment of child trauma, in particular, appears to be delivered least often with structured guidelines and materials. Most family-based services also appear to be delivered with limited monitoring of clinical effectiveness. Indicators of success are primarily anecdotal clinical reports or pre-post treatment measures, which cannot control for other variables in children's recovery. Only a few family-based services were evaluated with any type of control or comparison group.

This survey demonstrates that a preponderance of treatment settings is delivering services for child traumatic stress that include interventions designed to address the impact of trauma on family functioning, parenting, and parent-child relationships. Nevertheless, advancements in the science and practice of family-based services are necessary. Despite the existing literature demonstrating the correlation between parent and child symptoms following traumatic stress, the specific interference of traumatic stress symptoms in parenting, and the centrality of the family in the child's recovery and treatment involvement, more research is needed to establish the efficacy and effectiveness of family-based treatment for child traumatic stress. Further, more detailed information is needed on matching the family-based treatment model to clinical contexts, establishing effective family engagement and dissemination strategies, identifying culturally specific adaptations, and developmentally matched protocols.

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At the time this study was conducted, Risë B. Goldstein, Ph.D., M.P.H., was an Associate Research Epidemiologist with the Center for Community Health, UCLA Neuropsychiatric Institute, Los Angeles.

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